

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. **(withdrawn):** A process for the production of a vaccine composition of labile immunogens comprising:
  - (A) spraying a fluid comprising one or more liable immunogens into a reactor containing fluidized particles of a pharmaceutically acceptable water-soluble material at a temperature of about 25°C to about 50°C, such that the immunogen(s) coats and is dried onto the fluidized particles under the fluidizing conditions, and thereafter
  - (B) collecting from said reactor, dried immunogen coated particles having a moisture content between about 0.1% w/w to about 10% w/w so as to give a stabilized vaccine composition.
2. **(withdrawn):** The process according to claim 1, wherein the immunogen comprises a member selected from the group consisting of virus particles, bacterial cells, other microorganisms, and antigenic products thereof.
3. **(withdrawn):** The process according to claim 2, wherein the immunogen comprises virus particles or bacterial cells.

4. **(withdrawn):** The process according to claim 2, wherein the immunogen comprises a viral or bacterially derived immunogen selected from the group consisting of a protein, peptide, glycoprotein, glycolipid, and polysaccharide, optionally associated with a carrier, which on immunization of a subject provokes an immune response to the virus or bacteria from which the immunogen was derived.

5. **(withdrawn):** The process according to claim 1, wherein the fluid comprising one or more immunogens is a viral vaccine or bacterial vaccine preparation mixed with a stabilizing diluent to provide a fluid comprising viral particles or bacterial immunogens.

6. **(withdrawn):** The process according to claim 1, wherein the temperature is from about 30°C to about 46°C.

7. **(withdrawn):** The process according to claim 1, wherein the moisture content is from 0.1% w/w to 2.6% w/w.

8. **(withdrawn):** The process according to claim 7, wherein the moisture content is from 0.2% w/w to 1.5% w/w.

9. **(withdrawn):** The process according to claim 1, wherein said fluid comprising one or more immunogens is a suspension or dispersion of immunogens selected from the group consisting of viral particles, bacterial cells, other microorganisms, eukaryotic cells, and antigenic products of said immunogens.

10. **(withdrawn):** The process according to claim 1, wherein said fluid comprising one or more immunogens comprises one or more amino acids, proteins, chelating agents, buffers, preservatives, stabilizers, mineral salts, metal antioxidants, lubricants and adjuvants.

11. **(withdrawn):** The process according to claim 9, wherein viral particles or bacterial cells in a culture medium, vaccine composition or other fluid are diluted with a diluent.

12. **(withdrawn):** The process according to claim 1, wherein said particles of a pharmaceutically acceptable water-soluble material comprise one or more members selected from the group consisting of monosaccharide, disaccharide, polysaccharide, carbohydrate, water-soluble peptide, mineral salt, water-soluble polymer, and water-soluble pharmaceutically acceptable excipient.

13. **(withdrawn):** The process according to claim 1, wherein said pharmaceutically acceptable water-soluble material comprises one or more sugars.

14. **(withdrawn):** The process according to claim 1, wherein the pharmaceutically acceptable water-soluble material has a particle size of from 20 microns to 1 mm.

15. **(withdrawn):** The process according to claim 14, wherein said particle size is from 50 microns to 200 microns.

16. **(withdrawn):** The process according to claim 1, wherein said reactor is a spray drying reactor of a fluidized bed into which immunogen containing fluid is sprayed onto fluidized particles and dried thereon.

17. **(withdrawn):** The process according to claim 16, wherein fluid comprising one or more immunogens is sprayed through a nozzle or spray head which delivers the sprayed fluid into the reactor.

18. **(withdrawn):** The process according to claim 16, wherein said particles are fluidized in a reactor containing a fluidized bed at a rate between 200 to 500 m<sup>2</sup>/h.

19. **(withdrawn):** The process according to claim 1, wherein said vaccine composition is stable and efficacious on storage at 25°C for 30 days.

20. **(withdrawn):** The process according to claim 1, wherein the vaccine composition is a free flowing particulate material.

21. **(withdrawn):** The process according to claim 1, which further comprises mixing together two or more of said vaccine compositions containing different immunogens to give a multivalent vaccine composition.

22. **(withdrawn):** The process according to claim 3, wherein said virus particles or bacterial cells are a carrier for the delivery of DNA sequences, RNA sequences or vaccine antigens.

23. **(withdrawn):** The process according to claim 3, wherein said virus particles or bacterial cells are genetically modified.

24. **(currently amended):** A stabilized vaccine composition comprising immunogen coated particles of a pharmaceutically acceptable water-soluble material, wherein the composition has a moisture content of between about 0.1% w/w to about 10% w/w, further wherein the composition is stable and efficacious on storage at 25°C for 30 days, and further wherein the immunogen comprises virus particles, bacterial cells or other microorganisms.

25. **(canceled).**

26. **(previously presented):** The stabilized vaccine composition according to claim 24, wherein the immunogen comprises virus particles or bacterial cells.

27. **(previously presented):** The stabilized vaccine composition according to claim 26, wherein the composition contains live virus particles capable of reproduction in an immunized host.

28. **(canceled).**

**29. (canceled).**

**30. (previously presented):** The stabilized vaccine composition according to claim 24, wherein the pharmaceutically acceptable water-soluble material comprises one or more members selected from the group consisting of a monosaccharide, disaccharide, polysaccharide, carbohydrate, water-soluble peptide, gelatine, mineral salt, water-soluble polymer, and water-soluble pharmaceutically acceptable excipient.

**31. (previously presented):** The stabilized vaccine composition according to claim 30, wherein said water-soluble material comprises one or more sugars.

**32. (previously presented):** The stabilized vaccine composition according to claim 24, wherein said composition comprises two or more different immunogen coated particles, so as to give a multivalent vaccine.

**33. (currently amended):** ~~The stabilized~~A vaccine composition according to claim 24, wherein the ~~immunogen-virus particle, bacterial cell or other microorganism~~ is a carrier of a nucleic acid sequence or a peptide or polypeptide.

**34. (previously presented):** The stabilized vaccine composition according to claim 24, wherein said composition has a particle size from 50 microns to 400 microns.

**35. (previously presented):** The stabilized vaccine composition according to claim 34, wherein said particle size is from 50 microns to 200 microns.

**36. (previously presented):** The stabilized vaccine composition according to claim 24, wherein said immunogen coated particles comprise one or more members selected from the group consisting of amino acids, proteins, chelating agents, buffers, preservatives, stabilizers, mineral salts, antioxidants, lubricants and adjuvants.

**37. (previously presented):** The stabilized vaccine composition according to claim 24, wherein said composition is a free flowing particulate composition.

**38. (previously presented):** The stabilized vaccine composition according to claim 24, wherein said composition is immunogenic on administration to an animal or human.

**39. (previously presented):** The stabilized vaccine composition according to claim 24, wherein said composition is a human or animal vaccine.

**40. (previously presented):** The stabilized vaccine according to claim 39, wherein said composition is a poultry vaccine for the prevention or treatment of Newcastle Disease, infectious bronchitis, coccidiosis, fowl pox, fowl cholera, reovirus induced tenosynovitis (viral arthritis), fowl laryngotracheitis, avian encephalomyelitis, infectious bursal disease (IBD), Marek's Disease, salmonella infection, mycoplasma gallisepticum infection, avian

rhinotracheitis, avian herpes and *Mycoplasma hypopneumoniae*, Egg Drop Syndrome, Infectious Coryza (*Haemophilus pasagallinarum*), *mycoplasma synoviae* or avian reovirus.

**41. (previously presented):** The stabilized vaccine composition according to claim 39, wherein said composition is a porcine vaccine, for the prevention or treatment of *Actinobacillus pleuropneumoniae*, atrophic rhinitis, pseudorabies, swine erysipelas, porcine parvovirus, *E. coli* enterotoxigenesis, *mycoplasma hyopneumoniae*, influenza, leptospira, *E. coli* infection, Porcine Reproductive and Respiratory Syndrome (PRRS), *Bordetella* and multocida types A and D infections, *haemophilus parasuis* infection, *clostridium perfringens* infection, rotavirus infection, *Streptococcus suis* infection, Glasser's Disease, pneumonia, or *bordetella bronchiseptica* infection.

**42. (previously presented):** The stabilized vaccine according to claim 39, wherein said composition is a human vaccine for the prevention or treatment of influenza, hepatitis A, hepatitis B, hepatitis C, herpes simplex virus (type 2), polio, diphtheria, pertussis, *haemophilus influenza* type B (Hib), measles, mumps, rubella, typhoid fever, varicella (chicken pox), Dengue fever, Epstein-Barr virus infection, human papillomavirus infection, *Streptococcus pneumoniae* infection, *Neisseria meningitidis* infection, Pneumococcal infection, viral meningitis, rotavirus infection, tick-borne encephalitis, travel diarrhea, cholera, yellow fever or tuberculosis.